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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,842	08/02/2006	Kwang-Choon Chung	PLU-0012	6009
23413 7590 07/21/2008 CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103			EXAMINER PARKER, FREDERICK JOHN	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 07/21/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,842

Applicant(s)

CHUNG ET AL.

Examiner

Frederick J. Parker

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date 9/23/05/8/22/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title is too lengthy and generic.
4. The disclosure is objected to because of the following informalities: 1) the specification is replete with improper compound word, for example but not limited to : "pastecontaining", "fiberwithout", "methodcan", as well as problems with idiomatic English; proper correction or a substitute specification as necessary is required. (2) it appears on page 12, line 15 that (24) should be (54); please check. Appropriate correction is required.

Claim Objections

5. Claims 1-4,6-7,9-12 are objected to because of the following informalities: (1) clms 2,4,6,7,10-12 contain improper compound words, e.g. "fordrying", all of which must be corrected. (2) clms 4,9,11 contain the awkward transitional phrase "wherein it comprises" which

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should be replaced by “comprising”; (3) claim 8, line 4, “such” should be removed and be replaced with more appropriate verbiage. (4) claim 9 utilizes the redundant phrase “the said”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2,3,7-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claims 2,3,7,8 are vague and indefinite because it is unclear and unstated what fabric material/ criteria limitations are required for operation of the control unit.

- Claim 9 is vague and indefinite because the last 3 lines constitute method limitations which fail to further define the structure of the intended apparatus. Applicant cannot properly claim a combination of a device and a material worked upon, In re Highes 49F. 2nd 478. There is no patentable combination of a device and the material upon which it works, In re Rishoi 94 USPQ 71.

- Claim 10 is vague and indefinite because it is unstated where in the apparatus structure the dryer is installed.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Haruta US 6153263.

The reference pretreats a fabric with a first anti-bleed ink 1 by ink jet printing comprising heads with nozzles prior to applying colored inks by ink jet. Col. 2, 46-60; fig. 1; examples; and so on.

10. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nakamura US2002/0025379.

The reference pretreats a fabric using an ink jet application device inherently comprising an ink jet head [0069 and elsewhere].

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 2-13 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Miyaka US 6116728.

Nakamura is cited for the same reasons previously discussed, which are incorporated herein.

While the apparatus is not limited, nor are specifics disclosed.

Miyaka teaches an apparatus for continuously applying multiple liquids by ink jet onto fabrics. Col. 7, 30-col. 8, 33 and the 2nd embodiment teaches applying pretreatment agent/s followed by drying (in a "predrying unit") and then printing and drying. Fabric B is continuously fed via rollers 47,49, etc past the ink jet head 9, heating means 35, and printer 31, followed by additional heat means 46. It is apparent that there may be multiple types and colors of printings (col. 7, 65-col. 8, 33) with corresponding separate ink jet heads 9 coating supply devices 11, and conduits. The overall process is managed by computer with memory 110. Thus Miyake teaches the process limitations of claims 2-8.

Miyaka also teaches an apparatus to separately (consecutively or concurrently) apply plural fluids from separate reservoirs, conduits, printers, etc. Pre-treatment and ink/coating fluids are previously discussed. The ink jet recording unit may contain parallel guide rails 7,8 attached to a frame with a head carriage 10 comprising head 9. The positions of dryers per claims 10-13 are previously discussed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the process of Nakamura using the specific process and apparatus of Miyake which continuously ink jet prints multiple coating fluids to produce images with high definition/ sharpness and reduced streaking (col. 3, 23-28; 64-66; etc) while providing improved efficiency and cost-effectiveness over prior art processes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Frederick J. Parker
Primary Examiner
Art Unit 1792

/Frederick J. Parker/
Primary Examiner, Art Unit 1792